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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,799	10/31/2001	Rosa Maria Gomez	60011319-1	5959

7590 01/14/2004  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

TRAN, LY T

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/998,799

Applicant(s)

GOMEZ ET AL.

Examiner

Ly T TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 12/4/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/4/03 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seino et al (USPN 6,361,138) in view of Hanabusa et al. (USPN 5,459,496).

With respect to claims 1 and 10, Seino et al. discloses a method and an apparatus of determining service criteria for a print cartridge in a printer comprising:

- Receiving an indication that service is needed (Fig.6: element A, Column 3, line 66 to column 4, line 1)

- Determining a calculated age of the print cartridge (by reading the expiration date of the ink cartridge) (Fig.6: element C)
- Selecting a service procedure based on the determined calculated age (Fig.6: element F, Column 4, line 56 to column 5, line 27)

Although Seino teaches the determination of a calculated age of the ink cartridge instead of the print head as claimed, it is however known in the art the ink cartridge is an integral part of the print head as evidenced by Hanabusa (Column 1: line 30-31)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to calculate the age of the print head by calculating the age of the ink cartridge as taught by Seino, since it is well known in the art that the ink cartridge is an integral part of the print head as taught by Hanabusa.

With respect to claims 2 and 11, Seino et al. discloses selected service procedure has an impact on the long term life of the print cartridge that is proportional to the calculated age (Column 5: line 5-39).

With respect to claims 3 and 12, Seino et al. discloses classifying the calculated age as one of a plurality phase (Column 4: line 59-62).

With respect to claims 4 and 13, Seino et al. discloses plurality of phases include at least a beginning of life phase (Column 4: line 14-1) and a maturity phase (Column 5: line 10-14).

With respect to claims 5 and 14, Seino et al. discloses plurality phases include at least a beginning of life phase, a middle of life phase and a maturity phase (Column 6: line 8-26).

With respect to claims 6 and 15, Seino et al. discloses selected service procedure for beginning of life phase has a low impact on the long term life (Fig.7: element R)

With respect to claims 7 and 16, Seino et al discloses selected service procedure for middle life phase has a moderate impact on the long term life of the print cartridge(Fig.7: element Q)

With respect to claims 8 and 17, Seino et al. discloses selected service procedure for maturity phase has a severe impact on the long-term life of the print cartridge (Fig7: element S).

With respect to claims 9 and 18, Seino et al. discloses determining the calculated age comprises utilizing at least number of previous service procedure (Column 3: line 47-49, Column 4: line 45-52).

With respect to claim 19 and 20, Seino et al discloses service procedure for the ink cartridge, it's inherently has a prolonging impact on the useful life of the print cartridge because without cleaning service, the lifetime of the cartridge is shorter.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seino et al (USPN 6,361,138) in view of Hanabusa et al. (USPN 5,459,496) as applied to claim 1 above, further in view of Brunch et al (EP 034935).

The combination of Seino and Hanabusa fails to teach selecting procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately.

Bunch teaches selecting procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made as modify to select procedure service based on failed health, check the health of nozzle, repeating selected service if print head is determined to be operating inadequately as taught by Brunch et al. The motivation of doing so is to improve printing quality and the functional lifetime of the nozzles.

#### ***Response to Arguments***

4. Applicant's arguments filed 12/4/03 have been fully considered but they are not persuasive.

Applicant's argument that Seino's invention does not disclose selecting a service procedure based on calculated age of the print head is not persuasive. Applicant's own disclosure and dependent claims 9 and 18 show that the age of the head is actually calculated by the volume of ink expelled or number of precious service procedure. Therefore age is equivalent to use. Refer to column 3; line 47-49, Seino discloses that the ink capacity and number of times maintenance and the degree of each maintenance have been storage in the storage, and based on these information in the storage, the suction is execute. Furthermore, Hanabusa et al teaches an integral head, so if a cartridge and the head are an integral part, then the age of the cartridge is

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also an age of the print head because they are in one unit. Therefore, Seino still meets the limitation of the claim.

Arguments of the references independently are not persuasive because the rejection is a combination of Seino with Hanabusa et al.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T TRAN whose telephone number is 703-308-0752. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 703-308-4896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0967.



January 8, 2004



**Stephen D. Meier**  
**Primary Examiner**